(54) Title: ANALOG SIGNALS SAMPLER PROVIDING DIGITAL REPRESENTATION THEREOF
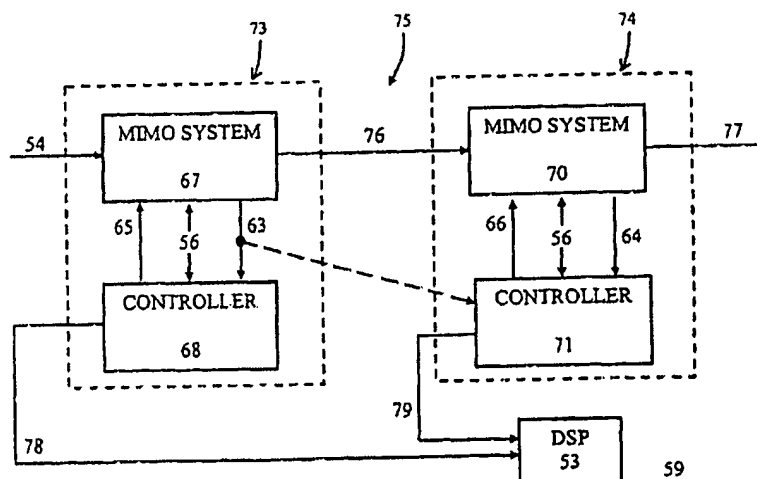
(57) Abstract: A method and a corresponding system for sampling at least one analog signal (54) and providing digital representa-
tion thereof (59). Disclosed an analog circuit (51) featuring high bandwidth, high gain, and low current consumption, wherein that
analog circuit is implemented by low accuracy components. The analog circuit is integrated with a control unit (52). The control unit
is keeping error outputs of the system at a minimal value so that the total effect of the control unit is canceling the effect of the input
signals. By knowing the effect of the control unit, the at least one analog input signals (54) can be approximated. The control unit
is using discrete value signals (58). Digital representation of these discrete value signals (57) is feed to a DSP that is reconstructing
the input signal by knowing the effect of the control unit and the model of the sampler.